



- **Waterproof rugged enclosure**
- **MIL-STD two piece whip**
- **NVIS operation capable**

The Barrett 2019 is an automatic tuning mobile antenna, specifically designed to interface with Barrett 2000 and 4000 series HF transceivers.

Providing a frequency coverage of 2 to 30 MHz, the Barrett 2019 features rapid tuning (typically <1.5 s) and low power consumption capabilities. High radiation efficiency and accurate tuning are assured by maximising antenna current (whilst not minimising the VSWR) on every tune. The Barrett 2019 antenna also incorporates a wideband amplifier that is activated when the transceiver is in receive mode in order to enable channel scanning.

The active tuning elements of the antenna are housed in a waterproof, high-impact resistant plastic moulding. This housing incorporates a heavy duty anti-vibration mount at its base. Even with its rugged construction, the Barrett 2019 weighs only 3.6 kg.

The main antenna body has a MIL-STD control cable and UHF RF connectors. The 2019 is supplied with a 6 metre composite RF control cable to connect it with the transceiver. A 10 metre RF control cable is available as an optional accessory.

The Barrett 2019 is supplied with a two piece fibreglass MIL-STD whip and a bulb spring.

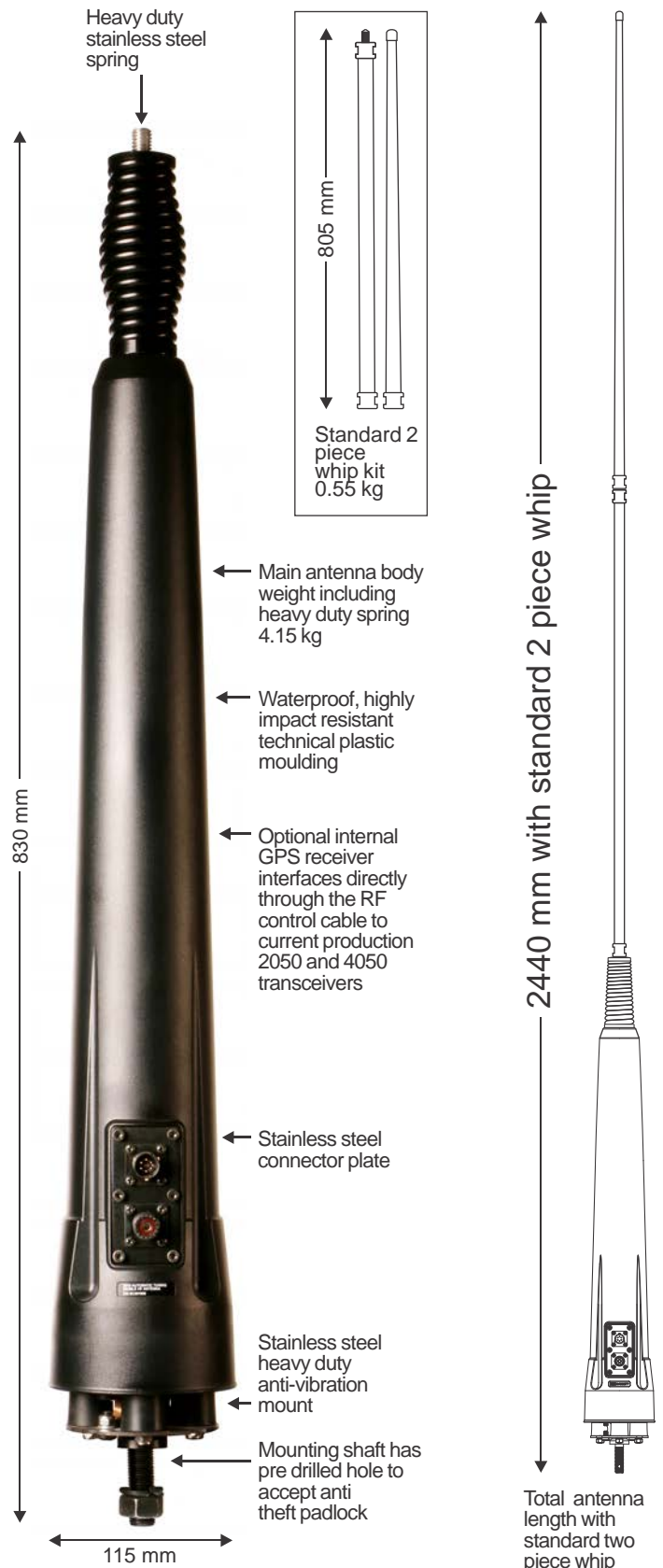
An optional NVIS Kit (P/N 201910) is available in the form a single flexible whip section of 4.2 metres. Additionally, an extendable whip (P/N 201909) is also available. Please see over page for more details.

Due to its rugged RF design, the Barrett 2019 antenna can be used with high duty cycle applications such as the Barrett 2020 email fax and data system and is compatible with ALE operation. An optional GPS receiver can be fitted within the 2019 antenna casing and interfaces directly through the RF control cable to current production 2050/4050 transceivers.

General specifications

Frequency range	2 MHz to 30 MHz (continuous)
Power handling capability	125 W PEP
VSWR	Better than 2:1 when tuned
Tuning time	Less than 1.5 seconds (typical)
Operating temperature	-30°C to +60°C
Humidity	95% relative, non-condensing
Environmental	IP67
Supply voltage	12.6 V DC (derived from transceiver)
Antenna impedance	50 ohm unbalanced
Mounting	M16 stud with provision for padlock
Weight	Main antenna body weight including heavy duty spring 4.15 kg
Input current	Average 600 mA @ +12.6 V input
Standards	Built to comply with MIL-STD 810G for drop, dust, temperature, shock and vibration

Specifications are typical. Equipment descriptions and specifications are subject to change without notice or obligation.



BCB2019/13

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ISO 9001

BUREAU VERITAS
Certification





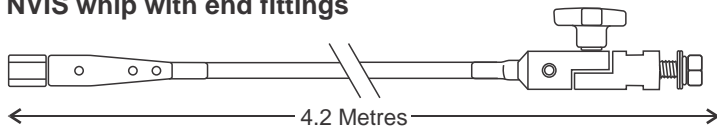
Whip options for the 2019 Automatic tuning mobile antenna

NVIS Kit for 2019 antenna - P/N BCA201910

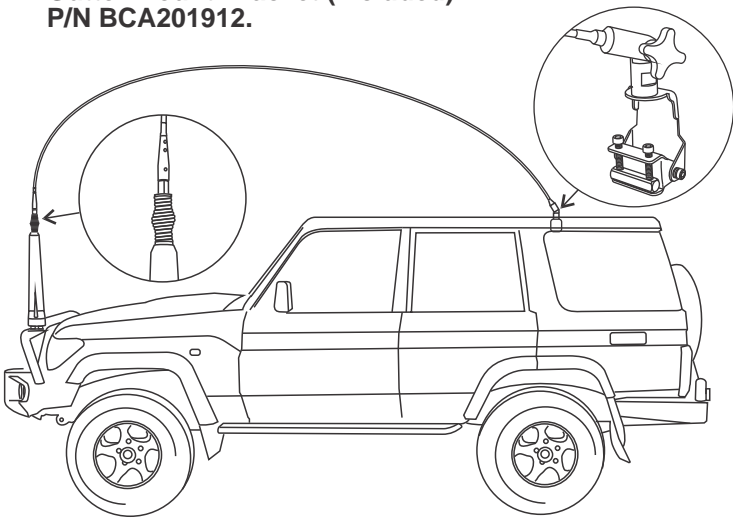
The Barrett Near Vertical Incidence Skywave (NVIS) antenna whip is designed to enhance the short range communications efficiency of the Barrett 2019 Automatic Tuning Mobile HF Antenna. The increased whip length combined with its horizontal orientation (once installed) provides a significantly higher take off angle and radiation efficiency. Communications paths over the range 20 - 500 kms, particularly in hilly and mountainous terrain, can be greatly improved through the use of the NVIS kit.

The NVIS kit comprises of a single flexible whip section of 4 metres in length. It attaches at one end to the 2019 antenna and the other end to the supplied Gutter Mount Bracket (P/N BCA201912). An optional NVIS Kit Magnetic Mounting Base (BCA201911) is also available and detailed below. The whip can also be secured to the vehicle without by using a custom made bracket with a 13mm hole (sourced by end user). This option may be preferable if the vehicle is fitted with a roof rack for example.

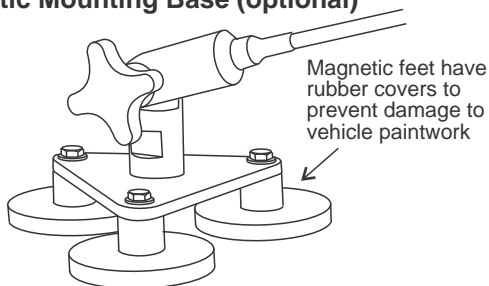
NVIS whip with end fittings



Example of front antenna mounting using Gutter Mount Bracket (included) P/N BCA201912.



NVIS Kit Magnetic Mounting Base (optional) P/N BCA201911



Specifications NVIS whip antenna

- Antenna Length 4.2 metres overall
- Antenna Weight 2.8 Kg
- Colour Matt Black UV stabilized
- Packing Size L75 x W75 x H7.5 cm
- Packing Weight 3.0 Kg

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Extendable Whip - P/N BCA201909

The extendable whip provides a low profile option to the standard two piece whip. This low profile whip option can be of benefit in areas where the antenna length needs to be adjusted frequently because of physical overhead interference like low branches or low slung power cables etc.

The main body is blackened stainless steel and the extendable whip element in plain stainless steel fit telescopically inside. It is locked and unlocked from its position by way of a hand turn-able turn lock fitting as shown below. The extendable whip provides the same 2019 the same antenna specifications as the standard two piece whip. The collapsed length is 810 mm and the extended length is 1560 mm with a weight of 0.43 kg.

